

Appl. No. : 10/776,463
Filed : February 11, 2004

AMENDMENTS TO THE CLAIMS

Claims 1-33 were pending prior to the entry of these amendments. Please amend Claims 20 and 29. Please cancel Claims 1-19, 23-25, and 30-33 without prejudice.

1.-19. (Canceled)

20. (Currently Amended) [[The]] An excimer laser of claim 13 comprising:

a chamber for containing laser gases;

a pair of electrodes for producing electronic discharge, said electrodes disposed with respect to each other in said chamber to form an active region therebetween, light being emitted from said active region when a voltage is applied to said electrodes;

an optical resonant cavity, said active region coinciding with at least a portion of said optical resonant cavity, said light emitted from said active region resonating within said optical resonant cavity thereby forming a laser beam;

a window on said chamber for egress of said laser beam from said chamber, said laser beam propagating through a portion of said window coincident with said laser beam;

a fan for circulating said laser gases in said chamber and through said active region; and

a baffle for restricting the flow of gas across said portion of said window coincident with said laser beam,

wherein said baffle comprises a stop disposed in front of said window, said stop having an aperture for said laser beam to pass.

21. (Original) The excimer laser of claim 20, wherein said aperture has a size about equal to the width of said beam at said aperture such that said aperture is substantially matched in size to said laser beam cross-section.

22. (Original) The excimer laser of claim 20, wherein said aperture has a size larger than the width of said beam at said aperture.

23.-25. (Canceled)

26. (Original) An excimer laser comprising:

a pressure vessel of the type in which a halogen gas is contained;

first and second electrodes for creating a laser discharge between the electrodes;

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first and second reflective elements forming a laser cavity in said pressure vessel, said laser discharge producing a laser beam in said laser cavity;

first and second optical surfaces oppositely situated in said pressure vessel, said laser beam propagating between said first and second optical surfaces;

a fan for circulating the gases; and

flow control surfaces within the pressure vessel to direct the flow of gases circulating within the pressure vessel away from portions of said optical surfaces on which the laser beam is incident, such that the rate at which particulates are deposited on such surfaces where said laser beam is incident is substantially reduced, wherein the portions of the pressure vessel, first and second electrodes, fan, and flow control surfaces that are in contact with the halogen gas are fabricated substantially of materials that react with the halogen gas to form stable reaction products having vapor pressures of less than about 10^{-6} torr at normal operating temperatures, such that the lifetime of the excimer laser is increased.

27. **(Original)** The excimer laser of claim 26, wherein at least one of said optical surfaces comprises surfaces on a window of said pressure vessel.

28. **(Original)** The excimer laser of claim 27, wherein said window is rotatable.

29. **(Currently Amended)** The excimer laser of claim 26, wherein at least one of said first and second reflective elements comprises a mirror, and wherein at least one of said optical surfaces comprises a reflective surface on [[a]] said mirror.

30.-33. **(Canceled)**